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THE FARMER.

SATURDAY, JULY 27, 1833.

THE WHEAT INSECT

Is said to be making serious havoc with the crop in some of the counties on the Hudson. It is only two or three years since we first heard of the ravages of this minute but formidable enemy in our country. It is discovered in the form of a very small yellowish maggot in the kernel of the grain. It generally goes under the name of the *Weavel*, though it is believed to be different from the weavel which infests the grain bin, and which destroys the grain in a dry state, while this new enemy prays upon it while green and in the field. See Genesee Farmer of April 27, page 129, for a particular account of this insect.

TO MAKE CALVES' FEET JELLY.

☞In many cases of disease, this preparation is of great value, particularly to those whose digestive organs are weak, and who are troubled with flatulence after eating. We once knew a person whose stomach would bear no other kind of food for nearly a year, and who was eventually restored to good health.

In preparing this jelly for the sick, such matters as saffron, cochineal, &c., ought to be omitted; and indeed we think it cannot be too clear to be beautiful. We have never used either Sherry or Madeira wine; but it will not keep quite so well without them, unless heated once in two or three days, according to the state of the weather.

To our country friends who cannot at all times procure lemons, we recommend citric acid and the essence of lemons which may be always kept in the house.

"Take four calves' feet [skinned] slit them in two—take away the fat between the claws—wash them well in luke-warm water, then put them in a large stew pan, and cover them with water; when the liquor boils, skim it well, and let it boil gently six or seven hours, that it may be reduced to about two quarts; then strain it through a sieve, and skim all the oily substance which is on the surface of the liquor.

If you are not in a hurry, it is better to boil the calves' feet the day before you make the jelly, as when the liquor is cold, the oily part being at the top, and the other being firm, with pieces of kitchen paper applied to it you may remove every particle of the oily substance, without wasting any of the liquor.

Put the liquor in a stew pan to melt, with a pound of lump sugar, the peel of two lemons, the juice of six [lemons], six whites of eggs and shells beat together, and a bottle of Sherry or Madeira; whisk the whole together until it is on the boil, then put it by the side of the stove, and let it simmer a quarter of an hour; strain it through a jelly-bag; what is strained first, must be poured into the bag again until it is as bright and as clear as rock water; then put the jelly in molds, to be cold and firm; if the weather is too warm it requires some ice.

When it is required to be very *stiff*, half an ounce of isinglass may be added when the wine is put in.

It may be flavored by the juice of various fruits, &c. and spices, &c. and colored with saffron, cochineal, red beet juice, spinage juice, claret, &c."

Dr. Kitchener adds that *ten* shank bones of mutton will give as much jelly as a calf's foot. In a case of sickness, where calves' feet could not be had, we used beeves' feet, preferring the youngest.

HARVESTING WHEAT AND OATS.

MY WAY is to let my wheat stand in the field until it is ripe, and dry enough to grind, cradle, rake and bind,—follow with my team, carefully take up each sheaf with the pitchfork, and throw on to (not against) the cart or wagon, and never stack out while I have roof under which to secure my crop of wheat. But before I begin my harvest, I examine my thrasher, put it in the best kind of repair, oil all the gudgeons and grease the cogs, fasten a pair of whippletrees to the levers, and have every thing in complete readiness. I frequently throw on the load the last bundles bound at night, and drive it on the barn floor, drop the harness and release the team, and direct him who shall rise first to bring up the horses and harness them to the machine, put the largest boy on the load to roll the sheaves off, and the next to drive the horses. By the time breakfast is ready the load of 150 or 200 sheaves, is thrashed, the straw thrown out, the wheat caved, and the barn cleaned up. Then away again, but don't forget your hammer, pincers, rifles, rakes, forks, jugs, &c., and lose the time of sending back after them—at 10, give a light lunch, just enough to brace the nerves, but not enough to injure the appetite for dinner. If your harvest lies at a distance from the house, let your hands ride to the field after dinner, and never work so hard one day as not to be as good the next. The advantages to be gained in the above process are, 1st. By letting your wheat stand until it is fully ripe, your crop is dispossessed of all unnecessary weight, your wheat perfect and flour higher flavored, threshes easier and is less likely to mow-burn. 2d. By taking the sheaf from where the binder left it, you take up many loose straws that would be dropped by carrying it together to *dozen up*—it is no more work to load than it is to bunch it up in the field—much waste and risk of rain is saved. The advantage of thrashing a load before breakfast, is too obvious to require comment. If you wish to market your wheat immediately, (which is by far the best way for farmers,) your wheat being fully ripe, is safe every way, will make more and better flour, and command a higher price. Straw should be so spread in the yard as to be trampled and wet thoroughly that it may be prepared for use before the coming crop, and make a regular annual business of cleaning your yards and deposits of manure.

Cut your oats pretty green, let them make well in the swath, stack them out, and reserve as much as may be thrashing them out until near spring, not only for the benefit of the straw for cattle, but that you may have enough to sow and to feed your team through spring work. SIMON.

NOVEL AGRICULTURAL EXHIBITION.

A Scotch agriculturist now on a tour in our country (P. SHIRREFF, Esq.) has put into our hands, *A Report of the Agricultural Exhibition at Stirling, in* 1832-3, a pamphlet of 74 pages; which contains a list of grains, grasses, roots, manufactured produce, machines, models, seeds, &c. exhibited, and some well written communications upon subjects of husbandry. The novelty of the exhibition consists in this, that these productions were not exhibited for *premium*, but for COMPARISON, and general information, and during a period of four months, from Nov. 1832 to March 1833. This mode of diffusing agricultural information, as to the relative value of farm products and implements, of the soils to which these crops are adapted, and of the manures employed, we think offers peculiar advantages to the practical farmer. Some of these advantages are thus particularized by Mr. Shirreff, in one of the communications contained in the pamphlet: "1st. By disseminating a knowledge of the characteristics of well known varieties, as well as of those lately selected, thereby paving the way for farther improvement. 2d. The want of rewards excites, not the jealous or emulative feelings of individuals, yet nurtures pure zeal, and congenially rewards true merit. 3d. Attempts at imposture or selfish aggrandizement, by introducing new plants, destitute of merit, is prevented, by the opportunity of contrasting them with what are already in use, while those of merit are brought before agriculturists in the best way. 4th. By deliberate inspection of the plants, the ductile and inquiring mind of youth is stored with information unalloyed by quackery." "Investigating the relative values of the different varieties of agricultural plants (continues Mr. S.) is a truly important object, requiring much judgment, care and time, and can only be successfully accomplished by the aid of a public association. When the subject is probed, it will, in all probability be found, that many prevalent opinions are founded in error, and that different varieties are suited to different soils, situations and seasons."

The exhibition was made at the premises of Messrs. Drummonds', where rooms were gratuitously prepared, open to all visitors. The articles were labelled with the names of the samples and of the growers, and generally with the description of the soil, the quantity and kind of manure applied, method of culture, and product per acre. At one end of the room the different sorts of grain, in sheaf, were disposed with a view to rural affect with a portrait of Sir John Sinclair, the father of Scotch improvement in husbandry. Bouquets of grain and of grasses, interspersed along the ranges, imparted a pleasing and exhilerating air to the whole; and altogether showed that the exhibition of agricultural seeds and plants may, even to the general visitor, be rendered highly attractive.

The *Turneps* exhibited amounted to eighty-eight samples, of all the varieties. The highest produce was forty-eight tons the acre of roots, and

the average product in seventeen cases in which the crop is stated, is a fraction less than forty tons the acre. The Scotch acre, it should be remembered, is about equal to one and a quarter Imperial or American acres. Loams and sands produced the best crops. Heavy manurings generally preceded the crop, consisting of yard dung, twenty to thirty tons the acre, bone dust, lime, compost, &c. Bone dust, at the rate of twenty-five to thirty bushels per acre, seems the favorite manure for the turnep crop and turnep soil. At 2*s.* 4*d.* per bushel, it is said that two acres can be manured with bone dust as cheap as one acre can be manured with yard dung, the latter being carted ten miles, a distance which it is frequently transported. Samples of Swedes weighed five and a half to fourteen pounds the root—(we have grown them to weigh sixteen pounds)—green top yellow six to fifteen pounds, red top yellow eight to thirteen pounds, white globe nine to twenty pounds, red top white eight to seventeen; green top white eleven; white tankard fourteen; purple do. eleven pounds. A manifest preference is given to the Swedes. One pound of Swedes giving four hundred and forty grains nutritious matter, while a pound of the common turnep affords but three hundred and twenty grains. There is this further difference: the larger the Swede the greater the proportion of nutriment which it contains, while the reverse is the case with the other sorts, the heaviest of the former being equal, in nutricious properties, to one and a half of globe, of like weight. The criterion of a good turnep: "to be well rounded, with a single tap-root, the neck small, and placed on a proper convexity for throwing off the rain and moisture."

But few samples of the *Carrot*, of field culture were exhibited. The heaviest root weighed three pounds. The precautions recommended in the culture of this root are,—1. to bring the seed to the point of vegetating before sowing, by mixing it with sand or earth, kept moist, and turned occasionally for several days. 2. To place compost in the drills, under the seeds, and within reach of the infant plants.

A great many samples of the *Potato*, early and late varieties, were presented. The products of fifteen varieties, in four yards of a drill, is stated to vary from eighteen to forty-one pounds, but as the names are not familiar here we omit the table. The experiments of Messrs. Drummond, to ascertain the most profitable mode of using the seed, we copy entire:

"No. 1, on the plan recommended by Mr. Knight, of Downton. The tubers were whole, weighing half a pound each, and were planted at the distance of six inches, in rows, which were four feet apart, and lying from south to north.

"Forty square yards of seed required 90 lbs. Produce 364 lbs., being per acre, of seed, 136 bushels, and of crop 550 bushels. Net increase, 414 bushels.

"No. 2. On the same plan, with the exception of the tubers being planted at 9 inches instead of 6 inches in the row.

"Forty square yards required of seed 60 lbs.—produced 326 lbs., being per acre, of seed, 91 bushels, and of crop 493 bushels. Net increase, 402 bushels.

"No. 3. On the same plan, with the exception of the sets being cut of the common size.

"Forty square yards required of seed 6 lbs.—produced 276 lbs; being per acre, of seed, 9 bushels, and of crop 417 bushels. Net increase, 408 bushels.

"No. 4. On the plan of sets cut of the common size, and planted 6 inches separate, in rows 2 feet apart.

"Forty square yards, required of seed 12 lbs.—produced 376 lbs.; being per acre, of seed, 18 bushels, and of crop 568 bushels. Net increase, 408 bushels.

"Grown on the same lot, under equal circumstances; planted May 28, raised Oct. 12. Soil a brown loam. Manure from yard, at the rate of 30 tons to the acre. In the calculations, the acres are imperial, the bushel 80 lbs. The plants of Nos. 1 and 2 were highly vigorous, and early in advance of the others; their tubers were not over large, and contained a greater proportion of small. The plants of No 3 gained fast in autumn, and produced by far the largest tubers, but did not ripen so well; those of No. 4 were most equal sized. The experiment was undertaken at the request of Sir John Sinclair."

By the way. We have this year managed our potato crop as follows: Soil a stiff loam; surface nearly level. Dressed with a good coat of stable dung,—ploughed in twelve feet ridges,—furrowed superficially for four rows on a ridge; cut the seed, and dropped the sets eight inches apart; covered with the plough, and six days thereafter furrowed the ground well lengthwise of the drills. The heavy rains followed, which rendered the soil wet, compact and crusty. As soon as the ground would permit, turned a furrow *from* each side of the drills, passed the cultivator, or horse-hoe, to break down and pulverise the clods, and then turned the furrows back to the drill, and harrowed a second time. To-day (June 29,) have passed the cultivator again, and earthed the drills with a plough,—thus *finishing* the culture without the aid of the hand-hoe, the field being perfectly free of weeds, and in excellent condition. To resume our subject.

Of *Wheat*, about sixty samples were exhibited, embracing varieties from Asia, Africa, and the north and south of Europe. Of these twenty-one varieties were exhibited by Mr. Shirreff, who has particularly distinguished himself by his attention to agricultural seeds. There was quite a display of other grains and legumens, particularly of oats, the bread corn of the land. Among the manufactured products were several samples of potato flour and tapiaco. Of the first, one sample was thirty-eight years old, having been made in 1794, from potatoes damaged by wet. Frosted potatoes, it is said, answer equally well. The tapiaco is made from potato flour, granulated over the fire in a large circular pan, and kept constantly stirred with a flat piece of wood, at a temperature 150 of Fahrenheit, until it becomes quite dry, hard and gritty.

Of *Grasses*, dried specimens and seeds were deposited of many species, and also various selections for hay and pasture. Their favorite rye-grass seems to have a successful competitor in the cocksfoot (orchard grass) it being esteemed, according to the report, "even for hay, to be of greater value, being much less impoverishing to the soil, more productive and nutritive, and affording better aftermath, or second crops. As a pasture grass, the superior merits of the cocksfoot appear unquestionable." There were several specimens of Kohl rabi, or turnep cabbage, which is much used for the table in Germany; esteemed equal to cauliflowers when cut small as dice, and well stewed or boiled. Models of a wedge drain, of corn and hay stacks and ricks, drain tiles, agricultural books, drawings, seeds, garden produce, and a general assortment of implements for the garden, forest and farm, were also displayed. A straw cutter, with which a man cuts the feed for eighty coach horses. Mr. Croal, a coach proprietor, of Edingburgh, states his saving, in *cutting the hay* for his horses, at one hundred and fifty pounds per annum. The daily allowance to a horse is eight pounds hay, and sixteen pounds oats, mixed and fed together. His horses, are in better condition, and do their work better, he observes, chiefly owing to their soon filling themselves, and having more time to rest than formerly. Among the implements was one of simple construction for washing potatoes, being merely two semicircular boards for forming the ends, and joined by spars nailed on their curved edges, leaving spaces of half an inch or thereby; with a handle like a basket. It is used in a pond or large trough.

We have been the more particular in noticing the nature of this exhibition, because we think it affords hints that may be useful to our agricultural societies. If samples of grain and grasses, properly arranged, with indications of soil, manure, culture and product, were left in deposit, after the agricultural fair is over, at which there is seldom time to examine and compare them, they would afford valuable data to the farmer, and no doubt lead to useful results. Nor can we believe our farmers are so sordid and selfish, as to refuse to exhibit their productions without the hope of *pecuniary* reward; for in an exhibition like the one we have noticed, the reward is ample and twofold: We acquire, and contribute to impart, useful knowledge. The consciousness of doing good to our fellow-men is among the highest pleasures that give dignity to the philanthropist and the Christian.

THE DAHLIA.

We have just paid a visit to the *Rochester Nursery*, and it is with great pleasure we can inform our friends, that the display of the Dahlia, surpasses our most sanguine expectations. We have heard much of this flower, but could not have imagined Flora displayed such richness in one genus of plants. Mr. Gordon informs us they have not suffered in the least from the attacks of insects, and confidently asserts, if the early flowering sorts are selected, there is no danger to be apprehended. The following sorts particularly arrested our attention:

Cambridge Surprise, most splendid; Cicero, splendid; Lord Hill, beautiful scarlet; Globe Crimson, an admirable flower; Watts' Magical; Crimson Multiflora; Lord Cochrane; Magnet; Coccinea superba; C. speciosissima; Marshal's Purple, most splendid; Queen Adelaide; Wood's Triumphant, &c., &c. Those and the other varieties form such a multiplicity of shades and richness of color as must captivate the most indifferent spectator.

We were much pleased to see this plant grown in great perfection *in pots*, by Mr. Benjamin Hill. We understood he had all his plants of Mr. Gordon, and his exertions affords a convincing proof that this delightful ornament of the garden may be brought to as great perfection in pots as in the open ground.

LARGE CHERRIES.

Mr. L. Jenkins, of this village, says the Canandaigua Repository, has presented us with a bunch of his Ox-heart Cherries, *sixty-four* of which weigh a pound. These cherries are of an excellent flavor, and are said never to be destroyed by the feathered tribe.

ON GARDENING—No. XI.

HORTICULTURE.

It is an indisputable fact that many vegetables which thrive well, and yield an abundant crop in some parts of the world, will not answer when grown in a different climate, although the parallel of latitude may be nearly the same. I have seen in some books on gardening, the latitude given, as a criterion for the instructions given as being generally applicable. This is a very erroneous idea, and could only be advanced by those who were unacquainted with the variations attendant on different climates. However it is a subject of great importance to ascertain what vegetables are most suitable for the country and climate in which we may be situated. Preconceived notions, and adopted favorites, must yield to existing circumstances. It is a great error in Europeans, that when they arrive in this country they adopt their old maxims, and their old habits. This is wrong, and I never yet have met with an emigrant but confessed the fact after a little experience,—but this is digressing. To ascertain what sorts or varieties of vegetables, are best adapted for the different sections of the country, is a desideratum deserving the attention of all. It is a duty we owe to ourselves, and to the community. In my opinion the most efficacious plan for effecting this, is to sow the different varieties of each sort of vegetable on the same day, in the same soil and aspect. Such is the method I have adopted, and I have made considerable efforts to enlist various individuals in the same cause, and I sincerely hope a short period will only elapse, before the results of their investigations will appear in the columns of the Farmer.

In this communication I shall only give the result of my crops of peas, sown in the manner above recommended, and which in my opinion is the most infallible rule for testing their capabilities for this climate.

On the 11th day of April, I sowed the following sorts of peas in a light soil with a due south exposure, one row of each :

	Fit for Table.
Bishop's true early prolific,	28th June.
New Royal Dwarf,	1st July.
Spanish Dwarf,	28th June.
Scimetar,	6th July.
Double Blossom early Frame,	10th June.
Early Nimble,	16 h June.
Woodford's New Nonesuch,	6th July.
Dwarf Imperial,	8th July.
Knight's Dwarf Marrowfats,	11th July.

For an early crop, the Double Blossom Early Frame, has decidedly the priority, and next to it the Early ; both sorts yield an excellent Pea, and very prolific bearers. The New Royal Dwarf, the Spanish Dwarf, Dwarf Imperial and Bishop's, I do not consider worthy of cultivation ; for a general crop the latter pea has acquired a degree of notoriety, which its merits do not deserve. I was among the first gardeners who grew this pea in England, and my first impression remains unaltered, viz: that its dwarfness is its principal recommendation ; as for its earliness it is superceded by several. The Scimetar, Woodford's New Nonesuch and Knight's Dwarf Marrowfats are incomparable peas ; they possess a degree of richness, surpassing all other varieties ; they are abundant bearers and yield remarkably well. For a general crop I would give them a decided preference, and if properly sticked they will yield for a cousiderable time. I have different sorts of vegetables proving in the same way, and it will afford me great pleasure to place the results before the readers of the *Farmer*.

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FLORICULTURE.

In a former number No. of the Genesee Farmer, I ventured an opinion on the Georginas (Dahlias) answering well in this section of the country, if the proper sorts were selected. It is with great pleasure I can state my most sanguine expectations have been more than realized The display of that great beauty of Flora's treasure, which I now possess is truly magnificent, never having suffered in the least from any insect, and I hope to see them displaying their splendid colors in every garden. When we examine their varied shades, the brilliancy of their colors, and their abundance of flowers—they certainly require only to be seen to captivate the most indifferent florist. They require to be tied to a strong stake, but so arranged that the flowers will stand boldly to the view, and that the plant will not be too much crowded.

Very respectfully, ALEX. GORDON.

Rochester Nursery, Main st., July 22, 1833.

He that is first in his own cause seemeth right ; but his neighbor cometh afterward and proveth him, (or setteth him right.)

Notwithstanding the subject of wheat turning to chess, has been hammer'd over and hammer hardened, the rust seems to cleave to it yet, as I perceive by some late notices in the Farmer. It appears, I will allow, that the communications are heterodoxical. As much strength will be derived from Heman Chapin's experiment, I shall first endeavor by sound philosophy to convince the public mind, that his process was not agreeable to direction, in as much as he cleaned the wheat instead of planting the heads. Suffice it also to state farther, that I took the wheat heads from the north side of a stack, and the west side of the barn, where I suppose the wheat had been kept in a moist state, and so excluded from the sun, in such a manner as not to dry or shrink at all. This is the manner in which I account for the wheat not turning to chess.

I shall now proceed to give a true statement of my own experiments. I took from a small lot where nothing had been suffered to tread the ground after harvest, enough wheat heads to plant eight hills, every one of which produced chess, except one which produced two straws of wheat and the remainder chess ; those are spoken of by my friend Mead Atwater. In the next place I sent one of my hired men in whom I have the utmost confidence, who gathered and cleaned in the best manner about half a pint of wheat, which was sown in a clean place where other wheat was on three sides of it, with a void place on one side, twenty rods in length, and six feet wide ; this location was chosen to cheat the pigeons if they came to exchange commodities. This lot contains five acres and is nearly clean from chess ; the seed was plowed in carefully and dragged in the best manner afterward. That which my hired man sowed was carefully hoed in, and nearly one half of it turned to chess, while the surrounding wheat is nearly clean.

I also sowed of the same seed as the five acre lot above mentioned, a lot of three acres after wheat. The ground was nearly clean from chess, but a plenty of wheat and wheat heads was buried in with the plough, and the seed sown and well harrowed in. The field now is one fourth chess, and in addition there is a breadth of about two rods in width, extending triangularly through the field, which is three fourths chess, caused by the waters overflowing late last spring, and remaining so long as to kill the wheat, so much as to turn it a whitish color ; the top of course decayed while the root remained, and vegetable life sprang up anew and produced a large growth of chess. Another mode of management producing chess, was, the cutting off a piece of wheat after it could be ascertained with certainty by examination, that it was wheat vegetation rose up from these roots and produced nothing but chess. Some of these chess stalks growed upon the side of the old wheat stalk more than one inch from the surface of the earth, resembling a young shoot from the bud, after the old stock is cut off. This is the crop which the farmer would reap, by feeding his field late to prevent its lodging down. Furthermore the half acre sown by Ambrose Burr upon new burnt land with entirely clean seed, has brought forth chess enough to seed one fourth part of it again, if chess would yield chess as spontaneously as wheat does.

I also planted one head of chess, which has borne chess of the size of carraway seed ; which I intend sowing this fall, but do not apprehend any seed another year.

Thus I have raised chess in four different ways, and have a fifth one on trial ; the result will be given hereafter when sufficiently tested. All the specimens will be preserved for future inspection.

I have observed to my satisfaction that the chess from rye, even when sown on our poorest land, grows much higher than the wheat chess, although the wheat is sown on good ground ; and the flax chess, although sown on the richest of land, will not grow higher than flax. I want every farmer to take particular notice how completely they preserve the stature of their respective legitimate fathers, as much so as the human species or brute creation. I think D. T. is under another mistake. As to those doing more good in the economy of wheat-raising, who pull the chess out of their fields, than those who do not sow wheat after wheat, prepare their seed and ground in a proper manner, put the crop in well, and in good season to, I shall leave for the farmer to determine. If by observing the above, is a preventive of seven eighths of the quantity of chess usually grown ; then, I see no necessity of continuing to raise this surplus quantity, for the sake of pulling it up again—*a penny saved is worth two earned.*

The remark made by my good friend David Thomas, that my allusions were too personal, I do not admit, and would be very happy in a private conversation, to convince him that I only intended to give two shillings for twenty-five cents, *honest measure.* I still acknowledge his superior talents, and, that he makes but very few mistakes.

GIDEON RAMSDELL.

Perrinton, 7th month, 1833.

Wool.—The Bellows Falls paper states that most of the wool grown in that vicinity has been sold to the manufacturers at from 50 to 75 cents. One fine lot was sold at 80 cents.

☞ The whole of the Delaware division of the PennsylvaniaCanal will be navigable on the 20th inst. The Canal between Easton and New Hope is in perfect order.

THE KING BIRD AND MARTIN.

My thanks to ULMUS for his polite notice. I cannot join him, however, in calling the Kingbird and the Martin, "thievish." They are noble birds, with no characteristic of the *thief* about them. They live and move in this wide world of ours as if it were their own; and never resort to deception of any kind in procuring what they want.

There is one circumstance, of which I hope ULMUS will permit me to remind him: It is now ascertained that the Kingbird only eats the *drones*. Wilson refers to this, in the following passage:

"In fields of pasture [the Kingbird] often takes his stand on the tops of the mullein, and other rank weeds, *near the cattle*, and makes occasional sweeps after passing insects, particularly *the large black gad fly, so terrifying to horses and cattle*. His eye moves restlessly around him, traces the flight of an insect for a moment or two, then that of a second, and even a third, *until he perceives one to his liking*, when with a sweep he pursues, seizes it, and returns to the same spot again, to look out for more. This habit is so conspicuous when he is watching the bee-hive that ☞ several intelligent farmers of my acquaintance are of opinion that he picks out only the *drones*, and never injures the working bees. ☜"

WILSON left this matter in doubt; but a correspondent of this paper, WILLIAM HOWE of North Almond, has satisfactorily solved the problem. In a communication which may be found at page 265, vol. 2, of the Genesee Farmer, he says:

"Having heard it argued by some that [the Kingbird] caught and devoured bees, and by others *that they did not*, I determined this season to satisfy myself whether they did or not. I therefore killed a number of them, and upon examination, found their gizzards (I could not discover that they had any *crop*) filled with *bees*, some nearly entire, and some in fragments; and upon further examination, found that *the bees were all drones*. I am therefore satisfied that they do not meddle with *the working bees*, unless through mistake."

I consider this an important discovery; and hope that our bee-keepers will save their powder and shot for better purposes than destroying this very useful bird, who with the Martin protects our poultry against the hawk, and our cattle against the gad-fly. ULMUS may rest assured however, that I wish him every success in his novel and meritorious undertaking; and that I read his communications on bees with much interest.

D. T.

Greatfield, Cayuga county, 7 mo. 13, 1833.

MANAGEMENT OF BEES.

MESSRS. EDITORS—In common with many others whose pursuits and tastes allow them to devote but little attention to scientific or practical agriculture and its sister occupations, I yet take much interest in the progress of agricultural improvement and the developments of our rich, and to a considerable extent, unappropriated resources, and am desirous as one of a common fraternity to contribute any thing in my power to the promotion of this object. It is this motive that has induced me to mention the following incident which occurred in our Western N. Y., on the authority of a gentleman of unquestionable veracity, who was knowing to it, and if you deem it worthy of publication it is at your service for that purpose.

A farmer having a large number of bees, had from one of the hives, late in the season, a very small swarm, and not wishing the trouble of nursing it himself, told one of his neighbors that if he had a mind to take it and treat it with sufficient care through the winter it would make him a very good swarm in the course of the next summer. His neighbor not having any, and desirous of commencing an apiary, took the diminutive hive, and as soon as cold weather set in, he placed it in the common apartment of his log hut, which was constantly kept warm, and every day they were fed with melasses, or sugar, spread on wheat bread, which they would come down, as regularly as chickens when called, and eat from his hand, and at the same time they appeared to be continually busy in the hive. As soon as spring opened he set them out doors, and shortly afterwards they sent out a swarm, which was rapidly succeeded by five others, from the parent hive, all of which had left the hive *before there had been a single swarm from his neighbor's bees, although he had more than forty hives.* One of these new swarms afterwards swarmed again, which made an increase in a single summer from one to eight swarms of bees all in consequence of the trivial attention bestowed on them through the winter.

Buffalo, 10th July, 1833.

EXTRACT FROM A DIARY

Kept at N. Almond, from Jan. 1, to July 1, 1833.

January.—The first week we had neither snow nor frost.—Snakes and frogs out, bees at work, and grass started to grow.—The residue of the month, weather variable, but little snow.

February.—Weather pleasant till the 9th, when we had a snow storm---some sleighing this month.

March.—Snow and sleighing until the 8th, when a thaw commenced, which, by the 16th, took all the snow off, except where it was drifted.—Blue birds, song sparrows, red wing and crow black birds and robins made their appearance on the 15th,—Pigeons on the 20th,—Frogs and snakes on the 23d,—On the 30th liver leaf, spring beauty and willow in flower, and bees came in with farina on their legs.

April.—Warm and pleasant during the first 10 days,—on the 5th saw a robin building a nest,—8th, mourning doves, sap suckers, and marsh wrens,—11th, a thunder shower,—violets both wild and cultivated in flower,—12th, rained most of the day,—13th, in the morning, snow an inch deep, but gone before noon,—picked a mess of cowslips for greens,—14th, 15th, and 16th, cold raw wind and froze so at night, that sap ran,---17th, rained,—19th, blood root in bloom, humble bees and toads appeared,—20th, sugar maple in blow,—21st, wind S. W. wind quite warm,—22d, thunder shower,—23d, quite cold, wind N. E.,—24th, in morning ground nearly covered with snow, dandelion in blow,—25th, saw barn swallows,—26th, brown thrush and cat bird, weather warm,—27th, strawberry, wild plum and wild service in flower,—28th, currants, gooseberries and Morillo cherry in blow,—29th, Virginia nightingale,—30th, red head woodpecker, red robin, peewee and whippoor-will—very warm.

May.—1st, Chimney-swallow—Peach, plum (cultivated) and cherry in full blow, apple commence flowering,—2d, wren and wheat ear appeared,—4th, quite cool and rainy,—5th, king birds and drone bees,---6th, dwarf almond and lilac in flower, very warm,---7th, Curculio* and striped bug appeared, apple in full bloom,—8th, and 9th, warm,—10th, strong S. wind all day, rained a little at night,—11th, a little rain to-day, clover, white and red, in blow,—12th, rain all day,—13th, do., humming-bird,—14th, some rain, water in the streams higher than ever remembered Rice bunting,—15th, some rain, —16th, no rain, but cloudy and very warm,—17th, thunder shower,—18th, do.,—19th, 20th, 21st,—some rain each day,—22d, clear and cool,—23d, slight frost,—24th, and 25th, clear and cool,—26th, and 27th, a little rain each day,—27th, a thunder shower at night,—28th, warm and clear, bees swarmed,—29th, rainy,— 30th and 31st, cloudy and warm, strawberries ripe.

June.—1st to 7th, a little rain each day, but warm,—8th, clear and cool,—9th, clear and cool, wind N. E.,—10th, slight frost in some places,—11th, clear and cold,—12th, clear, and a little warmer, damask rose in bloom,—13th, thunder shower,—14th and 15th, some rain each day,—16th, wind W. and warmer,—to the 23d, wind from S. E. to S. and weather warm,—24th, rain all day,—25th, some rain,—26th, do.,—27th, 28th, and 29th, clear and warm wind S. and S. W., cherries ripe,—30th, clear and very warm. At this time, wheat, rye, oats, grass, &c., look well, but corn is sickly.

W. H.

* The unusually warm weather in April and first part of May, I imagine, hatched this pest prematurely; for their depredations have been slight compared with last year. I find that those varieties of the plum which flowered first have suffered most. My cultivated plums are hardly injured at all, while some wild plums which flowered several days before them are entirely destroyed.

DESTROYING RATS AND MICE.

BY MR. JOHN HOWDEN.

Take a large flower pot, invert it on a board or stake, and sink it in the ground nearly level with the surface; opposite the hole in the bottom of the pot, and about two inches from the surface or entrance, may be suspended on a crooked piece of wire, a smooth wooden roller, like the caster of a bed post. This the mouse will leap upon, and from thence be precipitated to the bottom from whence he can never escape; and hundreds may be caught in the same trap without any trouble of resetting. The surface may be sprinkled with chaff or short straw, and a mixture of grass and clover seeds about the hole. The roller may be besmeared with lard and dusted over with flour or oatmeal. In wet weather a tile may be set over the hole to keep it dry.

I have invented another very simple mouse or rat trap, the difference is only in the size. An old packing box four inches deep for mice, and six for rats, is divided into lodging rooms four or six inches square. Each lodging room has two auger holes in it, the size of a mouse or rat, whichever the trap is intended for, as the rat particularly always requires to have a back door for retreat. The boxes may be placed under heaps of straw or corn in barns, sheds or gardens. A few sheaves of half thrashed oats may be laid over them in the latter places; the place will soon become the rendezvous of the vermin, and on removing the straw or corn, they will be found in their lodging rooms with their young ones. The box may be 18 or 24 inches wide, and of any length. The auger holes for ingress and egress may be stopped at once by a false frame or square of hoop iron, which may be made to drop down over all the holes at once, and the box may then be carried off to a place for the dog to try his agility.—*London Horticultural Register*

In a country of blind people, the one-eyed man is a king.

In the forehead and the eye, the the lecture of the mind doth lie.

From the Transactions of the Essex (Mass.) Agricultural Society for 1832.

CULTIVATION OF RYE.

To the Trustees of the Essex Agricultural Society.

GENTLEMEN—Having for some years past been more than commonly successful in raising large crops of winter rye by a process of cultivation which I believe is entirely new, I have been induced, by the suggestion of some gentlemen whose judgment I very much respect, to submit for your consideration a statement of the mode of culture with the produce. And that the success of the experiment this season may not appear to be altogether accidental, it will perhaps be as well to communicate the result of the process for the three or four previous years.

The land on which the experiment has been conducted is situated on the Merrimack, about a mile and a half east of Haverhill bridge, and came into possession of my father in 1827. The soil is a sand, approaching to loam as it recedes from the river Perhaps the term plain land, (by which it usually passes,) will better convey an idea of the quality of the soil. It is altogether too light for grass. The crops we find most profitable to cultivate on it are, winter rye, Indian corn, potatoes, and to some extent turneps. Oats might probably be raised to advantage were it not that the land is completely filled with the weed commonly called charlic, which renders it entirely unfit for any spring crop, excepting such as can be hoed. The crops of rye on the neighboring soil of the same nature, vary I believe from seven or eight, to twelve or thirteen bushels per acre, according to the cultivation, and their approximation to the river. We usually raise on this land from thirteen to thirty bushels of Indian corn per acre. Potatoes are very good in quality, but the quantity is quite small; not sufficient to be profitable were it not that the land is very easily cultivated.

In the summer of 1827, we sowed three bushels of winter rye near the river. on about two acres of land, which produced twenty-eight bushels.

In 1828, we sowed four bushels on four acres of land running the whole extent of the plain from the river. This piece was sowed in the spring with oats; but they were completely smothered with charlic, and about the middle of June, the whole crop was mowed to prevent the charlic seeding. By about the middle of August, a second crop of charlic having covered the land, it was ploughed very carefully, in order completely to bury the charlic, and then suffered to ramain until the 15th of September, when we began sowing the rye in the following manner. A strip of land about twelve yards wide was ploughed very evenly, to prevent deep gutters between the furrows, and the seed immediately sown upon the furrow and harrowed in. Then another strip of the same width, and so on until the whole was finished. We found the oat stubble and charlic entirely rotted, and the land appeared as if it had been well manured, though none had been applied to this part since it had been in our possession. The rye sprung very quick and vigorously, having evidently derived great benefit from being sown and sprouted before the moisture supplied by the decaying vegetable matter in the soil had evaporated to any considerable extent. This crop produced 133 bushels.

In 1829, the charlic was suffered to grow on the land appropriated to rye, until it had attained its growth and was in full blossom. The land was then ploughed very carefully, and the charlic completely covered in. In a short time a second crop appeared more vigorous than the first. This also was allowed to attain its growth, and then ploughed in as before. A third crop soon appeared, which of course was destroyed when the land was again ploughed for sowing about the middle of September. This piece of land was a parallel strip running from the river, and containing two acres. Two bushels of rye were sowed. The crop presented a remarkably promising appearance, and yielded seventy-four and a half bushels.

In 1830, the land appropriated to rye included nearly all the lighter part of the soil, and owing to a pressure of business was not attended to as we could have wished. It was ploughed in the early part of the summer. But harrowing to destroy the weeds was substituted for the second ploughing. This, and the unusual blight which affected all the grain in this part of the country, led us to anticipate a small crop. It yielded however fifteen bushels to the acre.

The land on which a crop of rye was raised the present season, had for the three or four previous years been planted with Indian corn. And owing to the extent of our tillage land, we have not been able to apply more than four or five loads of manure to the acre this season. The charlic was suffered to attain its growth as usual; and on the 18th and 19th of June it was carefully ploughed in. The second crop was ploughed in on the 6th and 7th of August. On the 14th and 15th of September it was sowed in the usual manner, namely: a small strip of land was ploughed, and the seed sown immediately upon the furrow, and then harrowed in. Then another strip of land was ploughed, and so on, until the whole was completed. One bushel per acre was sowed as usual. The seed was originally obtained from a farmer in this vicinity, and I suppose is similar to that which is generally used. We have never prepared our seed in any manner, but have directed our attention solely to the preparation of the land. And to this we attribute our success. Owing to the unusual severity of the winter, the crop was considerably winter-killed, but recovered very soon in the spring, excepting in the midfurrows. There, as the land lies very level, the water settled, and so completely destroyed the rye, that they continued bare the whole season. This would of course cause some diminution in the crop, perhaps a bushel or two. The rye was reaped at the usual season, and, as the weather was favorable, immediately put into the barn. The land contained one acre and thirteen rods, and yielded *forty-six bushels and three pecks.* A remarkably fine sample.

In entering a claim for your premium I would ask your attention particularly to the process of cultivation. It is I believe entirely new, and capable of general application.

Sowing the seed immediately after the plough, we consider very advantageous to the crop. The soil being then moist, causes the seed to spring immediately, and gives a forwardness and vigor to the plants which they ever after retain.

The process of ploughing in three crops of weeds before the seed is sown, very much enriches the soil. It would be altogether unnecessary to attempt to refute the notion, that by such a process nothing more is applied to the soil than was before derived from it. If one could not discover by the light which chimistry has shed upon the subject of agriculture, sufficient reasons for the contrary conclusion, observation, one would think, would be sufficient to convince any intelligent man of the fact.

And here I would suggest that I do not consider the experiment, as we have conducted it, quite complete. To render it more so, in the first place, in ploughing in the weeds, I would not turn a furrow after the dew had evaporated. I have no doubt but that a large portion of that fertilizing quality in the soil, which (during the summer months) is continually exhaled from the earth, is by the dew brought again within our reach, and it would be wise to avail ourselves of the opportunity of again burying it in the soil. And in the second place I would by all means use a heavy roll after each ploughing. It would fill all the cavities left by the plough, and by pressing the soil more closely to the weeds, at once hasten their decomposition, and very much retard the evaporation from the soil.

But the land is not only very much enriched by this process, but there is, I conceive, no method by which it can be so effectually cleaned. Three times during the season, a fresh surface is presented to the atmosphere, and each time, as the decaying vegetable matter increases in the soil, so is the exciting cause augmented to make a more vigorous effort. We have in this manner gone over nearly all our land which is infest with charlic, and the diminution of the weeds is quite sufficient to warrant the expectation, that in a few years it may be comparatively eradicated.

Very respectfully,

JOHN KEELY.

Haverhill, Sept. 22, 1832.

From the Columbia Sentinel.

ON RAISING GOOD CROPS OF WHEAT AND INDIAN CORN.

The introduction of gypsum or plaster to aid the germination and growth of clover, has produced nearly as great and desirable a change in farming, as the introduction and use of steam has in the navigation of our streams. Both have been sources of the development of powers with which we were recently unacquainted, and while the one has fertilized and is fertilizing our fields, the other is adding to our span of life, because it enables us to accomplish more. Strange as it may seem, they are mutual aids; for while the first causes the earth to yield of her abundance, the other gives a quick transit of that abundance to places from whence we are to expect the most ample returns. Gypsum furnishes us the means of bringing land into a high state of cultivation, and of producing a rapid succession of crops which are constantly improving. Experience, the guide of the farmer, has long since established the fact, that a good clover ley well turned under, is as sure to give a good crop of either wheat or corn as it is almost possible for the farmer to insure, with all the uncertainties that are incident to his occupation, and are likely to lessen his products. The addition of stable manure is not considered essential to insure a crop, and will hardly, on some soils, compensate the farmer for the labor and expense of its application where plaster has been freely used. The point I wish to establish is this—that, with suitable management, a good crop of clover will insure a succeeding one of grain, whatever it may be, if the soil is carefully turned over and the tilth permitted to remain undisturbed, so that it may afford food for the plants that follow. But with the growing grain neither grass noreweeds must interfere, and rob the earth of the sustenance which has been prepared with so much expense, labor and care. The crop must have the whole of it; and to permit either grass or weeds to grow is evidence of bad farming and consequently bad policy. The best fields of wheat, and there are many of them, which are now growing in this vicinity, have been prepared in the manner before stated, and their promising appearance is abundant evidence that the course which has been pursued is a correct one. It is but lately that it has been adopted; and I have often been forcibly struck with the very perceptible improvement, not only in the quantity raised, but in the qualtity which has followed the practice. It is demonstrative proof that we have become better acquainted with the appetencies of the plant, and furnish better supplies of the food it requires for its growth.

Another fact I have repeatedly noticed and have frequently seen most strikingly exemplified; and that is, that once ploughing of a clover sod is better than oftener. I have this year two lots by the side of each other—the soil is the same—both were in clover last year and pastured—one was only once ploughed, the other twice, and both put down to wheat. The difference now in the appearance of them is nearly one half in favor of the lot ploughed once. The same fact, under exactly similar circumstances, occurred to me last year. I was aware before that ploughing once was better than oftener, but I thought I had particular reasons for departing from the rule—the result however was the same. The observant farmers in this section of country, guided by experience, endeavor as much as possible to conform to this rule. But it is indispensable to a good crop of wheat that your land should be clear of the couch or quack grass, and likewise blue grass. It is the same with corn; but then what with ploughing and hoeing between the plants, you have a better opportunity to subdue it. I would ask our farmers to point out the best method destroying quack grass. It is becoming very

troublesome, at the same time it is extremely detrimental to the growth of wheat. I will only add that clover, besides insuring a good crop of wheat and corn, is valuable for hay. For draught-horses and sheep it is superior to any other, as it keeps them in finer condition. Of this I have an experience of at least fifteen years. But for feeding cattle it is not so profitable as other hay. A.

From the Hagerstown Torch Light.

CLOVER MANURE FOR WHEAT.

The wheat crop is the most important of all crops to the farmer. A man who has one hundred acres of cleared land, of common quality, ought to raise on an average *one thousand bushels of merchantable wheat*, and rye, corn, oats and potatoes sufficient to defray the expenses of carrying on the farming. The wheat crop should always be *clear gain.*

Don't startle at this, farmer. A man who has a farm of one hundred acres of cleared land, can yearly put forty acres of it in wheat; and if the land be in order as it should be, and as every farmer may have it, every acre of the forty will give twenty-five bushels, amounting altogether to one thousand bushels. I shall now show how land must be farmed, in order to produce in this way. Never break your land before harvest, and stir it after, as is customary with many farmers. Much ploughing impoverishes land, and is productive of no good effects. Your wheat ground must be heavily set in clover, and broken up after harvest with three horses, when the seed in the clover is ripe. By thus turning clover down after harvest, when the seed is ripe, it will never miss coming up in the spring, which is frequently the case when sown in the spring with seed. You also save between forty and fifty dollars worth of seed annually, which it would take to sow your ground. When the clover is ploughed down after harvest, before you seed the field, harrow it lightly the way you have ploughed it, in order to level the ground, and prevent the seed from rolling between the furrows, and coming up in rows. Never plough your seed in with shovels, nor harrow it across the ploughing, when you have turned down clover after harvest, lest you raise the clover, but always harrow it in by twice harrowing with light harrows the way you have broken up your ground. Many farmers have ploughed down clover once, and finding that the crop was not bettered by it, but injured as they believed, have never attempted it again. This is almost invariably the case the first time clover is ploughed down after harvest, especially if the fall be dry and the winter frigid and close. In turning clover down you must necessarily plough the ground deep, and the first time you turn up the clay, which being unmixed with manure of any sort on the top, is in a bad state to sow wheat on. The wheat after some time will sprout and come up, but will look yellow and very spindling. Its roots after some time will get down among the unrotted clover, and there will choke, and for want of moisture a great deal of wheat will dwindle away and die. The unrotted clover below will keep the ground wet and springy, so that the frost will injure the wheat not a little. But when the clover is twice ploughed down, the bad effects to the wheat crop arising from unrotted clover are not experienced. You then turn up the clover from below, which was ploughed down before, and which is a manure on the top. The seed sown on it now springs up directly, and before winter sets in has taken deep root. The clover now turned down rots very soon, in consequence of the rotten clover turned up, which as manure always keeps the ground moist, however dry the fall. You may now go on farming in this way: every time you turn up a coat of clover turn down one, and your wheat crop will never fail, until your land becomes so rich that you will have to reduce it with corn.

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I was pleased with the above suggestion, and I think it worthy the consideration of the farmer. We all know the fertilizing properties of clover, and that when mixed with the soil it is extremely congenial to the growth of wheat and corn. A good coat of it well ploughed in, is better calculated to give an ample yield than a covering of stable yard manure. Its large, rank and thick growth is likewise extremely beneficial to a succeeding crop in another point of view. It occupies the whole surface of the ground, and prevents the grasses and weeds from growing, so that clover well turned in leaves the ground clear and unoccupied by the roots of other plants which interfere with the growth of wheat. In this respect wheat is a remarkable plant; it will not thrive intermixed with any thing else; it must occupy the ground alone. But whether ripe clover ploughed in would seed the ground so as to give a succeeding crop of it, I will not undertake to give an opinion.—*Columbia Sentinel.* A.

THE SEASON.

IN A LETTER TO THE EDITOR OF THE AMERICAN FARMER.

Greatfield, Cayuga co. N. Y. 6 mo. 10, 1833.

The last winter was comparatively mild, the mercury in the thermometer scarcely sinking down to zero. The spring opened not earlier, however, than usual, but as it advanced, we had hot weather, at various times when the thermometer was above eighty degrees. Vegetation is in consequence, two or three weeks in advance of some other years. We had ripe strawberries on the 21st *ultimo*, a circumstance which has not occurred before within my recollection; and on the 26th *ultimo*, we had ripe cherries. In 1826, we had ripe cherries on the first of the six month, and that was considered a very rare occurrence.

It may be remarked that we cannot have *early fruit* without having *early varieties*. I have not the name of our earliest strawberry— the cherry was the "Early May," which though small, is delicious when fully ripe.

The difference of climate between Baltimore and this place is, probably not less than five weeks; in particular situations it may even be greater; but this is to be understood of the spring, or of the early part of summer. Autumnal frosts scarcely occur sooner here than along the shores of the Chesapeake.

We have a fine prospect of fruit, although many of the blossom buds of the peach and of the apricot, were killed, perhaps more than two-thirds of the latter, yet the trees have a full crop. The same may be said of our plums and nectarines. Pears which set last year most remarkably thin, now promise abundance; and it is particularly gratifying to discover that the *aphides*, which at that time threatened the trees with destruction, have almost disappeared. Whether this result is owing to the increase of other insects—their enemies, or to some other cause, I have not been able to discover.

The curculio. I think will not do us much damage. From the havoc which we made among them last year, when we destroyed almost thirteen hundred in my fruit garden, they have not yet recovered; and I feel encouraged, that with a little attention properly directed, these colonists will no longer be formidable.

Into your valuable paper of last year, an account of our method of taking the curculio was copied,* in which I showed the advantage of a *smart stroke* in detaching them from the trees. To strike against the side of a tree, or limb, bruises it; and it is, therefore, necessary to provide a *striking place.* This spring I sawed off one or more lateral branches of about an inch in diameter from each tree, leaving a stump to project, from which I removed the bark that the wood might *harden;* and also made the head convex with a knife, to prevent it from *battering* under the mallet. It is important that these stumps project nearly at right angles from the tree; otherwise the effect of the blow will be lessened.

On some trees, however, there are no limbs to spare, or none that project in a good direction. In those cases, something more *artificial* must be provided. A *turned* pin of *hard* wood, with a shoulder, may be inserted; and if painted, it would continue for years. The harder the wood, the better; for the more violent the jar, the greater is the certainty of bringing them down from the tree. D. T.

* American Farmer, vol. 14, p. 125.

From the Farmers' Register.

EXPERIMENT TO TEST THE POSSIBILITY OF WHEAT DEGENERATING INTO CHESS.

October 20th, 1832. A spot about twenty feet square, on one side of a field of corn, was left out when all the adjacent ground was ploughed and sowed in wheat three days before. Soil, a silicious loam, (which had been marled in 1820,) on a retentive subsoil, which by preventing the sinking of water from rains keeps the surface very wet through winter and spring. The surface of this part of the field is a very gentle slope, declining towards the north, and the lowest spot of the whole, (and therefore the most exposed to water,) is where the space was marked for this experiment. There the surface becomes level. The whole field, including this spot, had been ploughed five or six inches deep last winter, for corn, and well cultivated, but not later than the beginning of July. All remained very clear of weeds.

The space was lightly smoothed by the broad hoe, merely to level the clods, but not broken any where an inch deep, and generally not cut at all. As the corn had been tilled level, and not hilled, the surface required but little smoothing. Wheat was selected for the trial which had passed through a cockle sieve, and of course was all either shriveled, or very small grains of plump. Lines were slightly traced along the edge of a straight rod, (not more than half an inch deep,) and a few seeds, varying from three to seven, were placed accurately at every six inches of the line, by notches on the rod made at those distances. The seed was carefully cleaned of every grain of cheat, spelt and cockle. Half the square was thus planted in such rows six inches apart, and the remainder in similar rows twelve inches apart. For fear that even this very defective seed might not be bad enough to insure the change to cheat, one of the subscribers picked out a number of the most shriveled and imperfect grains, all of which he is confident will bring cheat, if they are capable of producing any thing, which is very doubtful from their appearance. One of the rows was planted with these grains, four being carefully deposited at each distance of six inches. All the seeds were covered with about half an inch of mold taken by the hand from the intervals between the lines; and the whole space was then slightly beaten over with the flat of the broad hoe.

About four feet width adjoining the square, and of similar unbroken corn land, was strewed broad cast with similar defective seed, and covered as shallow as possible.

The earth dry at this time, and in fine order for ploughing. The weather uncommonly warm for the last three days.

Present and assisting at the making of this experiment, the undersigned Thomas Cocke and Edmund Ruffin, of Prince George county, and William J. Cocke, of Sussex—the first a believer and the second an unbeliever in the change of wheat to cheat, and the third undecided. It was our design in this experiment to bring into operation every cause to which this change is usually ascribed by different persons, namely, 1. imperfect seed—2. thick sowing—3. a wet soil—4. hard or unbroken soil—5. grazing or mowing, which is to be done next spring.

If any cheat or spelt should grow in this square from any other seed, it cannot be mistaken for the product of the wheat we have planted, unless the plants should stand in one or more of the positions so accurately fixed by measured distances.

THOMAS COCKE,
EDMUND RUFFIN,
WILLIAM J. COCKE.

—

April 15th, 1833. The growth of plants on the square is very mean, (generally six or seven inches in height,) and but few are living compared to the number of grains sown. Every row, however, has some plants living. Half the marked row where the worst seed was used, and as much of the one adjoining, was cut down this day within an inch of the ground, and the parts so treated were also marked.

June 3d. We again carefully examined the

experiment together, to know and report the final result. Not a single head of cheat or spelt is in the whole space. The cut plants have grown as tall, and are not perceptibly worse than the balance in the same rows. The row sown with the very imperfect grains, has a still more scanty growth than the others, but had twenty four heads of wheat in its whole length; a few of these heads had not come out of the *boot*, and perhaps will not produce grain—but they were opened and found to be wheat, like all the rest which were out.

The adjacent parts of the field of wheat contain a few scattered stalks of cheat, and still fewer of spelt. The seed had been well cleaned, (though probably not perfectly,) by the hand-sieve.

THOMAS COCKE.
EDMUND RUFFIN.

Prince George Co. June 4, 1833.

From the N. Y. Farmer.

NATIVE ORNAMENTAL PLANTS.

"If in the fields I meet a smiling flower,
Me thinks it whispers, *God created me*,
And I to him devote my little hour,
In lonely sweetness and humility."

I find many of my neighbors pleasantly attracted "over hills, through valleys and by river brink," in search of our native and uncultivated flora, and their gardens begin to show a brilliant collection of all that is pleasing.

This appears the most suitable season to make selections, the flowers being now mostly in bloom. Removals of plants may be made with a small ball of earth round the roots, and about half of the flower stem left standing; in this way, with some shading and watering for a short time, one can have at once all the shades of blue, pink, scarlet, yellow, purple and white of the present and past month, blooming in our flower borders, with all their charming wild native sweetness.

"Your voiceless lips, O flowers! are living preachers,
Each cup a pulpit, each leaf a book,
Supplying to my fancy numerous teachers
From loneliest nook."

The prolific hand of Nature, has scattered more than one hundred and twenty varieties of herbaceous and flowering shrubs, within twelve or fifteen miles of this village, and every hill and dale is now made tributary to add to the domestic floral wreath. How pleasant to notice this growing taste—and it is fondly to be hoped this national kind of feeling for the collection of many fine plants to be found all around us, may spread all over the country; great and prolific as it is in vegetable wealth, till at least samples of what is useful, grand and beautiful, may be secured from the rapid advances made by the axe and the plough, in all directions among our great host of native beauties.

In elegancy of shape and brilliancy of color, many of our wild flowers will be found to bear a fine contrast with the exotic plants of any nation At this moment, several indigenous plants are before me, which are superior to many green-house plants that require great care to obtain a dingy flower and sickly foliage, from a poor shaped plant.

To the amateur cultivator of flowers in the open ground, little need be said in praise of our elegant hardy plants, which are easy of culture, show their beauties plentifully at the proper season, and stand the cold of our severest winters.

Our climate in this, and many other states, is found equal to that of any country for the cultivation of culinary vegetables and fruits; and when we look at our numerously fine and graceful forest trees, with the whole extensive variety of superb shrubs and flowers, we are led to conclude the time is not far distant, when the ornamental department of gardening, in all its elegant branches, will be fully fostered, and prove our climate, soil, and capability of our people in this tasty fascinating art, not to be second to those of any country.

LANSINGBURGH.

September 6, 1832.

It is stated that the natural increase of population in Great Britain, is equal to five hundred in every 24 hours.

CHICK IN THE EGG.

The hen has scarcely sat on the egg twelve hours, when we begin already to discover in it some lineaments of the head and body of the chicken that is to be born. The heart appears to beat at the end of the day; at the end of forty-eight hours, two vesicles of blood can be distinguished, the pulsation of which is very visible At the fiftieth hour, an auricle of the heart appears, and resembles a lace, or noose, folded down upon itself At the end of seventy hours we distinguish wings, and on the head two bubbles for the brain, one for the bill, and two others, one for the forepart and the other for the hindpart of the head—the liver appears towards the fifth day At the end of one hundred and thirty one hours, the first voluntary motion is observed. At the end of one hundred and thirty-eight hours the lungs and stomach become visible - at the end of 142, the intestines, the loins, and the upper jaw. The seventh day, that which was slimy, begins to have some consistence. At the 190th hour of incubation, the bill opens, and the flesh appears in the breast. At the 194th, the sternum is seen, that is to say, the breast bone. At the 210th the ribs come out of the back, the bill is very visible, as well as the gall bladder. The bill becomes green at the end of 236 hours; and if the chick is taken out of its covering, it evidently moves. The feathers begin to shoot towards the 240th hour, and the skull becomes grisly. At the 264th the eyes appear. At the 288th, the ribs are perfect. At the 331st, the spleen draws near to the stomach, and the lungs to the chest. At the end of 355 hours the bill frequently opens and shuts; and at the end of 451 hours, or the 18th day, the first cry of the chick is already heard—it afterwards gets more strength, and grows continually, till at last it sets itself at liberty, by opening the prison in which it was shut up. Adorable wisdom of God! it is by so many different degrees these creatures are brought into life All these progressions are made by rule! and there is not one of them without sufficient reason. No part of its body could appear sooner or later, without the whole embryo suffering, and each of its limbs appear at the most proper moment. This ordination, so wise, and so invariable in the production of the animal, is manifestly the work of a Supreme Being.—*American Farmer.*

LOCUST TREES ON LONG ISLAND.

For some ten or twenty years past the attention to this valuable tree has been constantly increasing in many parts of the Island. It is now quite common to see them not only occupying the lanes, avenues and yards, about the residence and out-buildings, but whole fields. They are propagated in various ways, but generally by ploughing among them, thus causing them to sprout from the broken roots Some farmes begin to sow the seed, and cultivate them with corn and other crops that require the ground to be enriched and frequently stirred. In the spring, while in bloom, the air is literally fragrant with their perfume. From locust trees alone the value of property on the Island is increasing, and will continue to increase.—*N. Y. Farmer.*

MANURE IS WEALTH.

In our intercourse with some of the farmers residing within forty or fifty miles from New-York, on Long Island, we have been surprised at the instances related to us of the profitableness of farming. Some farmers, known to have labored and toiled hard, have continued yearly to fall in arrears until they have commenced *buying* manure. Fifty-six cents are given per carman load at the landing, for the apparently worthless dirt swept from the street. This applied at the rate of twenty loads produces wealth. The very farmers who could not obtain a living by using only manure made on their farms, have, in a very few years, not only freed their farms from incumbrances, but purchased others in addition, and are now, from the yearly profits of their farms, putting money out at interest. If then it is found so profitable to *buy* manure, and be at the various expenses attending the carting, how very important is it to give special attention to increasing the quantity and improving the quality of that made on the farm. There is no question but that almost every farmer can double the quantity of his domestic or yard manure, without scarcely any additional expense. It is thought, too, that at least fifty per cent. of the nutritive properties of yard manure are lost by drenching of rain, excessive fermentations, and injudicious application to soil. The more we consider this subject the greater does it become in importance, and justly regarded as the primary object in farming.—*N. Y. Farmer.*

A SYSTEMATIC READER.—A Highland laird, living in a remote district, but withal a staunch politician, took the London Courier; but as the post boy only visited him once a week, he always got six Couriers at a time. He reads these papers in regular succession, one every day, but never more, in order that he might have the stimulous of a daily paper. So rigid was he in this admirable rule, that if a debate did not terminate in the paper where it commenced, he has often been observed to remark that he longed much for the next morning, so anxious was he to learn the result of the discussion.

EMIGRATION.—94,000 protestants have emigrated from Ireland during the last four years.

NEW-YORK MARKET.

Saturday, July 20, 1833.

ASHES—Pots, which had been up to $4 20 last week, have again declined during the week, the sales were at $4 15a4 12, and yesterday at 4 10, a decline of 10 cts. Pearls are dull, but have not fallen off in price. Sales at $4 60. The decline is owing to the withdrawal of orders from the market.

FLOUR—In the early part of the week the demand for western was limited, and prices fell off from 6 1-4 to 12 1-2 cts. but at the close the market recovered and sales freely at $5 62, for common brands, and $5 75 for choice, from the wharf, from the stores 6 1-4 less is accepted. Ohio via Canal $5 43—sour brisk at $4 75. All Southern Flour is maintained owing to the small stock. Sales, of Howard street $6 26, Richmond county 6 06, Georgetown 6 25.—Rye flour $3 75. Alexandria $6 1-8.

GRAIN—The price of corn last week is fully sustained; northern will command 75 to 76 cents freely, and the last lot of southern in market brought 70 cts. Rye dull at 80 cts. for 56 lbs.; oats northern, 40 cts. No wheat has arrived during the week, and but one lot of new from the south since the harvesting commenced.

PROVISIONS—Pork is firm; sales mess at $15 and at that price cash was refused yesterday. Prime $11 1-2a11 3-4; beef is about the same, prime $6 a mess $10 1-4. Lard, western 8 northern 10.

WOOL—The market is very firm, and all descriptions in brisk demand.

Rochester Prices Current.

Wheat, per bu.	1 06	Apples,	1 00a1 50
Flour, per brl.	5 25	Lard, cwt.	8 00
Pork, mess, brl.	14 00	Cheese do	6a9 00
do prime do	10 00	Butter	12½ 00
Beef per cwt.	3a4 00	Hams do	7a8 50
Oats	34	Pot Ash, cwt.	3 50
Corn	63	Pearls,	3 75a4 00
Rye	75	Hides, cwt.	5 00
Barley	50a56	Sole Leather,	19a22 00
Hay, per ton,	8a9 00	Harness do	25 00
Grass Seed,	1 25	Upper p side, drs'd	2 25
Potatoes,	25a37½	Bundle do	3 00a3 50

200,000 White Mulberry Trees.

THE Subscriber has on hand and for sale, 200,000 WHITE MULBERRY TREES, of two and three year's growth, which have been transplanted, are in a healthy and thrifty condition, and which he offers for sale at $1,50 $2,00 per hundred, delivered at the nursery. Also, a few of the Morus Multicaulis, or Chinese White Mulberry.

ASA BUTLER.

P. S. All orders, *Post paid* will be punctually attended to.

Suffield, Conn. April 1st, 1833. ap20 f3m

From Mrs. Child's Frugal Housewife.

DOMESTIC ECONOMY.

The true economy of housekeeping is simply the art of gathering up all the fragments so that nothing be lost. I mean fragments of *time*, as well as *materials*. Nothing should be thrown away so long as it is possible to make any use of it, however trifling that use may be; and what ever be the size of a family, every member should be employed either in earning or saving money.

"Time is money." For this reason, cheap as stockings are, it is good economy to knit them. Cotton and woolen yarn are both cheap; hose that are knit wear twice as long as woven ones; and they can be done at odd minutes of time, which would not be otherwise employed. Where there are children, or aged people, it is sufficient to recommend knitting, that it is an *employment*.

In this point of view, patchwork is good economy It is indeed a foolish waste of time to tear cloth into bits for the sake of arranging it anew in fantastic figures; but a large family may be kept out of idleness, and a few shilling saved, by thus using scraps of gowns, curtains, &c.

In the country, where grain is raised, it is a good plan to teach children to prepare and braid straw for their own bonnets, and their brothers' hats.

Where turkeys and geese are kept, handsome feather fans may as well be made by the younger members of a family as to be bought. The sooner children are taught to turn their faculties to some account, the better for them and for their parents.

In this country, we are apt to let children romp away their existence, till they get to be thirteen or fourteen. This is not well. It is not well for the purses and patience of parents; and it has a still worse effect on the morals and habits of the children. *Begin early* is the great maxim for every thing in education. A child of six years old can be made useful; and should be taught to consider every day lost in which some little thing has not been done to assist others.

Children can very early be taught to take all the care of their own clothes.

They can knit garters, suspenders, and stockings; they can make patchwork and braid straw; they can make mats for the table and mats for the floor; they can weed the garden, and pick cranberries from the meadow, to be carried to market.

It is wise to keep an exact account of all you expend—even of a paper of pins. This answers two purposes; it makes you more careful in spending money, and it enables your husband to judge precisely whether his family live within his income. No false pride, or foolish ambition to appear as well as others, should ever induce a person to live one cent beyond the income of which he is certain. If you have two dollars a day, let nothing but sickness induce you to spend more than nine shillings; if you have one dollar a day, do not spend but seventy-five cents; if you have half a dollar a day, be satisfied to spend forty cents.

In early childhood, you lay the foundation of poverty or riches, in the habits you give your children. Teach them to save every thing—not for their *own* use, for that would make them selfish—but for *some* use. Teach them to *share* every thing with their playmates; but never allow them to *destroy* any thing.

I once visited a family where the most exact economy was observed; yet nothing was mean or uncomfortable. It is the character of true economy to be as comfortable and genteel with a little, as others can be with much. In this family, when the father brought home a package, the older children would, of their own accord, put away the paper and twine neatly, instead of throwing them into the fire, or tearing them to pieces. If the little ones wanted a piece of twine to play scratch-cradle, or spin a top, there it was in readiness; and when they threw it upon the floor, the older children had no need to be told to put it again in its place.

Ill would the fat sow fare on the primrose of the wood.

In a calm sea every man is a pilot.

MISCELLANIES.

March of Improvement.—Mr. James D. Woodside of Washington City, has invented, and obtained a patent for a machine for sowing, harrowing and rolling, by means of which a person may sit in the front of a cart, under a canvass covering, sow the grain; harrow and roll it in without exposure to the sun, and leaving the ground without any impression from the horse's feet or the cart wheels! The machine consists of a revolving cylinder, containing 45 feet, which is revolved by a power obtained from the wheels of the cart, to which it is with ease attached and detached. In addition to the harrow, there is a convenience for sowing grain in front of the cart, by supplying a hopper from which it is conveyed into a sieve, so constructed as to distribute it from wheel to wheel. The cylinder harrow in the rear of the cart effectually covers the grain, attached to which is another cylinder used as a roller.—*N. Y. paper.*

Mr. O. Hussey, of Cincinnati, has invented a machine for cutting wheat, or any other small grain, by horse power. It will when propelled by two horses, cut as fast as eight persons can bind, and does the work well. A fair trial has been made of it, in the presence of several members of the Agricultural Society of Hamilton County, and met their approbation. We have seen the machine, though not in operation; our opinion is that it may be applied to cutting grass also.—*N. Y. Gaz.*

Human Bones for Manure and the end of Human Glory.—An article with the above appropriate title is going the round of the newspapers. The neighborhood of Leipsic, Austerlitz, Waterloo, and of all the places where, during the bloody wars of Napoleon, the principal battles were fought, have been swept, it is said, alike of the bones of the hero and the horse which he rode.—Thus collected, they have been shipped to the port of Hull, (England) and thence forwarded to the Yorkshire bone grinders, who have erected steam-engines and powerful machinery, for the purpose of reducing them to a granulary state.

"In this condition they are sent chiefly to Doncaster, one of the largest agricultural markets in that part of the country, and there sold to the farmers to manure their lands. The oily substance gradually evolving as the bones calcine, makes a more substantial manure than almost any other substance—particularly human bones. It is now ascertained beyond a doubt, by actual experiment upon an extensive scale, that a dead soldier is a most valuable article of commerce; and for aught we know to the contrary, the good farmers of Yorkshire are, in a great measure indebted to the bones of their children for their daily bread. It is certainly a singular fact, that Great Britain should have sent out such multitudes of soldiers to fight its battles upon the continent of Europe, and should then import their bones as an article of commerce to fatten their soil."

This is indeed a singular termination of *human* glory!—*Troy Press.*

India Rubber Table Cloths.—We have recently seen a sample of a new and superior kind of covers for tables and stands.—Manufactured by Samuel Steele & Co. Woodbury, Ct. They are composed of cotton, with a composition of India rubber, &c. varnished and bronzed in an elegant manner. They cost but little more than common oil cloth, and are much superior both for beauty and durability. One very important quality which they possess over any oil cloth covers, is their *elasticity*, as they can be doubled in every possible manner, without breaking or injuring the composition of which they are made.—*Danbury Herald.*

A disease among Horses.—A singular and fatal disease is prevailing among the horses in this vicinity. They are seized without previously exhibiting any illness and immediately lose the use of their limbs. The proprietor of an extensive livery stable in this city, has lost six within a few days. He does not entertain the opinion that they are diseased. Messrs. Parker & Co. have lost nine horses the last week with the same symptoms.—*Utica Sentinel.*

Mr. Lucas Knapp of the town of Austerlitz, has a team of dogs with which he is in the habit of riding out daily. The dogs are but about fourteen months old, and last December when the roads were bad they traveled from the residence of Mr. K. (who is a cripple) to Winchester, Conn., a distance of *sixty miles* in one day, drawing him in a small wagon which he has for that purpose. He returned by the same novel conveyance in the same space of time.—*Columbia Sentinel.*

To remove flies from a room.—Take a half a teaspoonfull of black pepper, in powder, one teaspoonfull of brown sugar, and one table spoonful of cream; mix them well together and place them in the room on a plate, where the flies are troublesome, and they will soon disappear.

Wonders of the Creation.—The following paragraph is from the eloquent Chalmers:

About the time of the invention of the telescope, another instrument was formed, which laid open a scheme no less wonderful, and rewarded the inquisitive spirit of man. This was the microscope. The one led me to see a system in every star, and the other led me to see the world in every atom. The one taught me that this mighty globe with the whole burden of its people and its countries, is but a grain of sand on the high field of immensity; the other teaches me that every grain of sand may harbor within, the tribes and the family of a busy population. One told the insignificance of the world I tread upon, the other redeems it from all insignificance! for it tells me that in the leaves of every forest, and the waters of every rivulet, there are worlds teeming with life, and numberless are the glories of the firmament. The one has suggested to me, that, beyond and above all that is visible to man, there may be fields of creation which sweep immeasurably along, and carry the impress of the Almighty's hand to the remotest scenes of the universe; the other suggests to me that within and beneath all the minuteness which the aided eye of man has been able to explore, there may be a region of invisibles; and that could we draw aside the mysterious curtain which shrouds it from our senses, we might see a theatre of as many wonders as astronomy has unfolded, a universe within the compass of a point so small as to include all the powers of the microscope, but where the wonder-working God finds room for the exercise of all the attributes where he can raise another mechanism of worlds, and fill and animate them all with the evidence of his glory.